AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-32 were pending in the application. Claims 1-20 and 23-32 are maintained in their original form and Claims 21-22 are cancelled.

1. (Previously Presented) A modified acetylcholine receptor subunit comprising an α subunit of a vertebrate acetylcholine receptor having a region which is homologous with the amino acid sequence shown in SEQ ID NO: 1, wherein at least one amino acid in the region of the α subunit of the vertebrate acetylcholine receptor which is homologous with the amino acid sequence shown in SEQ ID NO: 1 is replaced by an amino acid which occurs at the identical position in the corresponding region of an α subunit of an insect acetylcholine receptor, and wherein the replacement of the at least one amino acid in the region of the α subunit results in a change of the amino acid sequence when compared with the amino acid sequence of the α subunit wherein no replacement has occurred.

2. (Previously Presented) A modified acetylcholine receptor subunit according to Claim 1, wherein at least four amino acids in the region of the α subunit of the vertebrate acetylcholine receptor which is homologous with the amino acid sequence shown in SEQ ID NO: 1 is replaced by the corresponding number of amino acids which occur at the identical positions in the corresponding region of an α subunit of an insect acetylcholine receptor.

3. (Previously Presented) A modified acetylcholine receptor subunit according to Claim 1, wherein at least seven amino acids in the region of the α subunit of the vertebrate acetylcholine receptor which is homologous with the amino acid sequence shown in SEQ ID NO: 1 is replaced by the corresponding number of amino acids which occur at the identical positions in the corresponding region of an α subunit of an insect acetylcholine receptor.

4. (Previously Presented) A modified acetylcholine receptor subunit according to Claim 1, wherein the entire region of the α subunit of the vertebrate acetylcholine receptor

which is homologous with the amino acid sequence shown in SEQ ID NO: 1 is replaced by the corresponding region of an α subunit of an insect acetylcholine receptor

5. (Previously Presented) A modified acetylcholine receptor subunit according to Claim 1, wherein the α subunit of a vertebrate acetylcholine receptor comprises mouse, rat, chicken, zebra fish, rhesus monkey, bovine or porcine neuronal subunits.

6. (Previously Presented) A modified acetylcholine receptor subunit according to Claim 1, wherein the α subunit of an insect acetylcholine receptor is the α2 subunit or the α3 subunit of Myzus persicae, or the α1 subunit of Heliothis virescens or Manduca sexta, or the α1, α2 or α3 subunit of Drosophila melanogaster.

7. (Previously Presented) A modified acetylcholine receptor subunit according to Claim 1, comprising the amino acid sequence shown in SEQ ID NO: 3.

8. (Previously Presented) A modified acetylcholine receptor comprising an acetylcholine receptor subunit according to Claim 1.

9. (Previously Presented) A modified acetylcholine receptor according to Claim 8, further comprising a mouse, rat, chicken, zebra fish, rhesus monkey, bovine or porcine β subunit.

10. (Previously Presented) A nucleic acid comprising a nucleotide sequence which codes for a modified acetylcholine receptor subunit according to Claim 1.

11. (Previously Presented) A nucleic acid according to Claim 10, wherein the nucleic acid comprises single-stranded or double-stranded DNA or RNA.

12. (Previously Presented) A nucleic acid according to Claim 11, wherein the nucleic acid comprises fragments of genomic DNA or cDNA.

13. (Previously Presented) A nucleic acid according to Claim 10, wherein the nucleotide sequence comprises the sequence shown in SEQ ID NO: 2.

14. (Previously Presented) A DNA construct comprising a nucleic acid according to Claim 10 and a heterologous promoter.

15. (Previously Presented) A vector comprising a nucleic acid according to any of Claim 10.

16. (Previously Presented) A vector according to Claim 15, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in prokaryotic or eukaryotic cells.

17. (Previously Presented) A host cell containing a nucleic acid according to Claim 10.

18. (Previously Presented) A host cell according to Claim 17, wherein the host cell is a prokaryotic cell.

19. (Previously Presented) A host cell according to Claim 17, wherein the host cell is a eukaryotic cell.

20. (Previously Presented) A method for preparing a modified acetylcholine receptor subunit according to Claim 1, comprising the steps of :

a) cultivating of a host cell containing a nucleic acid comprising a nucleotide sequence which codes for an acetylcholine receptor subunit according to Claim 1, in a culture medium and under conditions which ensure expression of the nucleic acid, and

b) isolating the polypeptide from the cell or the culture medium.

Claims 21-22 (cancelled).

23. (Previously Presented) A method for preparing a modified acetylcholine receptor subunit according to Claim 1, comprising the steps of

a) expressing of a nucleic acid comprising a nucleotide sequence which codes for an acetylcholine receptor subunit according to Claim 1 in an in vitro system, and

c) isolating the polypeptide from the in vitro system.

24. (Previously Presented) A modified acetylcholine receptor comprising an acetylcholine receptor subunit of Claim 7.

25. (Previously Presented) A modified acetylcholine receptor subunit according to Claim 1, wherein the modified acetylcholine receptor subunit displays greater sensitivity to imidacloprid as compared to an unmodified acetylcholine receptor subunit.

26. (Previously Presented) A DNA construct comprising SEQ ID NO: 2 and a heterologous promoter.

27. (Previously Presented) A vector comprising a DNA construct according to Claim 26.

28. (Previously Presented) A vector according to Claim 27, wherein the nucleic acid is functionally linked to regulatory sequences which ensure expression of the nucleic acid in prokaryotic or eukaryotic cells.

29. (Previously Presented) A host cell containing a DNA construct according to Claim 26.

30. (Previously Presented) An isolated acetylcholine receptor comprising β subunit and an α subunit, wherein the α subunit comprises SEQ ID NO: 3.

31. (Currently Amended) An isolated acetylcholine recept[e]or comprising an α subunit and a β subunit, wherein the α subunit comprises a region having the same amino acid sequence as a region of an α subunit selected from the group consisting of:
the α2 subunit isolated from Myzus persicae,
the α3 subunit isolated from Myzus persicae,
α1 subunit isolated from Heliothis virescens,
the α1 subunit isolated from Manduca sexta, and
the ~~he~~ α1, α2 or α3 subunits isolated from Drosophila melanogaster.

32. (Currently Amended) An isolated acetylcholine recept[e]or according to Claim 31, wherein the β subunit is has the same amino acid sequence as a β subunit selected from the group consisting of:
the β2 subunit isolated from mouse,
the β2 subunit isolated from rat,
the β2 subunit isolated from chicken,
the β2 subunit isolated from dog,
the β2 subunit isolated from zebra fish,
the β2 subunit isolated from rhesus monkey,
the β2 subunit isolated from bovine, and
the β2 subunit isolated from porcine.

Respectfully submitted,

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